

## Identifying the Objects of Biological Interest

The CSNM Presidential Proclamation states:

“With **towering fir forests, sunlit oak groves, wildflower-strewn meadows**, and steep canyons, the Cascade-Siskiyou National Monument is an ecological wonder, with **biological diversity** unmatched in the Cascade Range. This rich enclave of natural resources is a biological crossroads -- the interface of the Cascade, Klamath, and Siskiyou ecoregions, in an area of unique geology, biology, climate, and topography.”

“The monument is home to a spectacular variety of **rare and beautiful species of plants and animals**, whose survival in this region depends upon its continued **ecological integrity**. Plant communities present a **rich mosaic of grass and shrublands, Garry and California black oak woodlands, juniper scablands, mixed conifer and white fir forests, and wet meadows**. Stream bottoms support **broad-leaf deciduous riparian trees and shrubs**. **Special plant communities include rosaceous chaparral and oak-juniper woodlands**. The monument also contains many **rare and endemic plants, such as Greene's Mariposa lily, Gentner's fritillary, and Bellinger's meadowfoam**.”

“The monument supports an **exceptional range of fauna**, including one of the highest diversities of **butterfly species** in the United States. The Jenny Creek portion of the monument is a significant center of **fresh water snail diversity**, and is home to **three endemic fish species**, including a long-isolated stock of **redband trout**. The monument contains important **populations of small mammals, reptile and amphibian species, and ungulates**, including **important winter habitat for deer**. It also contains **old growth habitat crucial to the threatened Northern spotted owl and numerous other bird species such as the western bluebird, the western meadowlark, the pileated woodpecker, the flammulated owl, and the pygmy nuthatch**.”

The monument's geology contributes substantially to its **spectacular biological diversity**. The majority of the monument is within the Cascade Mountain Range. The western edge of the monument lies within the older Klamath Mountain geologic province. The dynamic plate tectonics of the area, and the mixing of igneous, metamorphic, and sedimentary geological formations, have resulted in diverse lithologies and soils. Along with periods of geological isolation and a range of environmental conditions, the complex geologic history of the area has been instrumental in producing the **diverse vegetative and biological richness** seen today.

“One of the most striking features of the Western Cascades in this area is Pilot Rock, located near the southern boundary of the monument. The rock is a volcanic plug, a remnant of a feeder vent left after a volcano eroded away, leaving an out-standing example of the inside of a volcano. Pilot Rock has sheer, vertical basalt faces up to 400 feet above the talus slope at its base, with classic columnar jointing created by the cooling of its andesite composition.”

“The Siskiyou Pass in the southwest corner of the monument contains portions of the Oregon/California Trail, the region's main north/south travel route first established by Native Americans in prehistoric times, and used by Peter Skene Ogden in his 1827 exploration for the Hudson's Bay Company.”

The Proclamation then goes on to say:

“.....do proclaim that there are hereby set apart and reserved as the Cascade-Siskiyou National Monument, for the purpose of protecting the objects identified above.....”

Then in the livestock grazing paragraph it goes on to say

“.....study the impacts of livestock grazing on the objects of biological interest in the monument with specific attention to sustaining the natural ecosystem dynamics.....”

From this one would assume that the biological objects of interest are:

Tangible:

- Towering fir forests, sunlit oak groves, wildflower-strewn meadows
- Rare and beautiful species of plants and animals
- Rich mosaic of grass and shrublands, Garry and California black oak woodlands, juniper scablands, mixed conifer and white fir forests, and wet meadows
- Broad-leaf deciduous riparian trees and shrubs
- Special plant communities include rosaceous chaparral and oak-juniper woodlands
- Rare and endemic plants, such as Greene's Mariposa lily, Gentner's fritillary, and Bellinger's meadowfoam
- Range of fauna including; fresh water snail diversity, three endemic fish species including a long-isolated stock of redband trout, populations of small mammals, reptile and amphibian species, and ungulates, including important winter habitat for deer
- old growth habitat crucial to the threatened Northern spotted owl and numerous other bird species such as the western bluebird, the western meadowlark, the pileated woodpecker, the flammulated owl, and the pygmy nuthatch

Intangible:

- Biological diversity
- Ecological integrity
- Spectacular biological diversity
- Diverse vegetative and biological richness
- Natural ecosystem dynamics

While most people understand tangible objects that can be seen and felt, many do not relate to intangible objects that are responsible for the persistence of plants, wildlife, parent communities, and their pattern of occurrence across the CSNM landscape. Richness, diversity, and integrity can change over time and are measures of ecosystem dynamics. Ecosystem dynamics reflect the effects of a range of forces (fire, succession, weed invasion, herbivory, and others) that interact with the physical environment of the landscape to maintain objects of biological interest on the CSNM. The maintenance of forces or ecological processes that support the objects of biological interest is therefore central to management of the CSNM